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New Zealand Wood Products and Forestry Report (MY2009)

Report Categories:

Wood Products

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Report Highlights:
Net planted area is continuing to decline in New Zealand falling to an estimated 1.75 million hectares as of April 2009. Wood and wood product exports, excluding pulp and paper, were down 8.4% on a value basis in MY 2009. However, exports to China were up significantly due to a boom in log exports, up 154%. New Zealand's forestry sector was brought into the country's Emissions Trading Scheme in January 2008. Other sectors, including agriculture, will be brought into the scheme over time. New Zealand has been selling carbon credits on the international market as the domestic market is just beginning to develop.

Executive Summary

The full impact of the global credit crisis and ensuing economic slowdown was sheeted home to the New Zealand wood processing sector during marketing year (MY) 2009. Housing consents for the 12 months to November 2009 fell to 14,199, having peaked at 31,618 in 2004. Lumber and wood product exports to the US market, one of the most valuable for New Zealand, were only 214,562 cubic meters (m3) during MY 2009 (October 2008 – September 2009), a far cry from the 500-600,000 m3 considered the norm earlier in the decade. A bright spot was a strengthening in lumber prices during the year, which meant that the average annual price was 28% higher than the previous year at NZD 879/m3.

Exports of all wood products, including pulp and paper, totaled USD 2.12 billion during MY 2009, a 14% decrease compared to the previous year. However, due to a depreciation of the Kiwi dollar during the first half of the year, in NZD terms, export receipts actually increased 8.6%.

The impact of the economic downturn was mediated in 2009 because of one dominant factor: Chinese demand for logs. While total log exports were up 33% to 8.4 million m3, exports to China grew by an astounding 154% in MY 2009. Total roundwood removals were up by 3% to 20.23 million (m) m3.

Net planted area continued to decline falling to an estimated 1.751 m hectares (ha) in April 2009, down 76,000 ha from the peak in 2003. Among other things, this is partly the result of the race to deforest land suitable for dairying prior to January 2008, which was when the forestry sector was brought under the Emissions Trade Scheme (ETS). The uncertainty associated with the implementation of the ETS has increased caution in the sector, breeding a general unwillingness to plant new trees and putting a damper on the trading of forest carbon credits, which is only now beginning to gather momentum.

During the last two years, New Zealand has concluded Free Trade Agreements with China, ASEAN, Malaysia, the Gulf Cooperation Council and Hong Kong. While these FTAs offer significant benefits to New Zealand, wood products, in most cases, already enter duty free or at low tariff levels.

Research in New Zealand, both Government-supported and private, seems to be focused on the product end of the forestry and wood spectrum. Products being researched range from steel cable reinforced wood beams suitable for construction of up to 20 story buildings to harvesting bio-energy from wood and tree residue. In addition, there is ongoing emphasis on research associated with the environmental benefits of forestry and wood products such as carbon sequestration and reduced nitrate leaching.

The outlook for the forestry and wood product sectors is very much a “steady as she goes” story for the next year. Most commentators agree that the rate of log exports to China is unlikely to slow down over the next year. This will provide a good base for forestry companies to maintain their harvest removals, and potentially increase them by 3-5% if housing starts in New Zealand pick up. Housing consent data from the last few months suggests that the worst of the housing downturn is over. Looking further forward, New Zealand has the potential to increase its plantation forest estate by at least one million ha if currently uneconomic or semi-idle agricultural land is put into use.

Production

Forest Situation

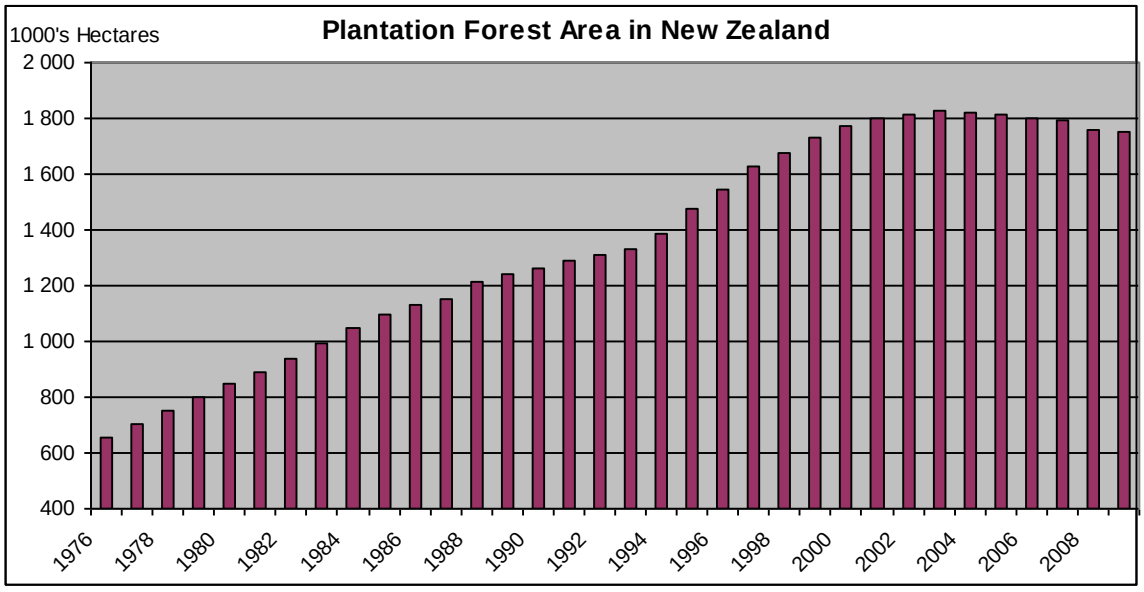
The volume of timber harvested in MY 2009 reached 20,231,000 m3, up 3% on the previous year. During the September 2009 quarter, the total amount harvested reached 5,802,000 m3, the highest level since September 2002.

Average Age of Trees Removed
Nationally, the rotation length is approximately 37-40 years, which implies that the average age of trees is getting older. Available statistics indicate that the average age of trees harvested is now 28.3 years.

Indigenous Forests
Indigenous forests in New Zealand cover over three times the land area of plantation forests. About 5 million hectares of indigenous forest are owned by the state and a further 1.3 million hectares are privately owned. Harvesting of government-owned indigenous forest is not permitted. The bulk of this land is managed by the Department of Conservation for conservation, biodiversity, catchment management, and recreation purposes.

According to MAF estimates, timber harvested from privately-owned indigenous forests in calendar year 2008 totaled 14,000 m3 compared to 19,100,000 m3 for plantation forests. Under the legislation for indigenous forest management, harvesting must be done on a sustainable basis, which means only single trees or small groups of trees can be harvested at any one time. Currently, 50,000 ha are permitted to be harvested, which equates to an annual harvest of approximately 78,000 m3 of logs. MAF estimates that up to 250,000 ha of indigenous forest could be sustainably managed.

Planted Area



Source: MAF

According to MAF's national exotic forest description, planted area peaked in 2003 at 1.827 million ha. Since then, planted area has fallen to 1.751 million ha. The main reasons accounting for the 76,000 ha

decline include a land use shift away from forestry to dairy farming, especially in the central North Island and in Canterbury on the South Island, and the associated lack of replanting.

There was a rush to deforest land suitable for dairy production prior to January 1, 2008 when the ETS came into force. Under the scheme, deforestation or land use change away from forestry is penalized. The penalty is based on the GHG emitted (under Kyoto rules) multiplied by the price of carbon at the time. This deforestation is just beginning to show up in the national statistics and the full impact should be known within the next year or two.

The New Zealand Government has implemented several programs to encourage additional plantings including the Permanent Forest Sink Initiative, which is aimed at establishing forests for garnering carbon credits; the Afforestation Grant Scheme, which is designed to encourage planting of trees in small forests and on farms; and the East Coast Forestry Project, which was set up in 1992 to promote the planting of commercial forests on severely eroding land. The ETS also allows for the ownership of carbon credits from post-1989 forests to be devolved back to their owners. However, none of these programs seem to have arrested the recent decline in plantation forest area. For more information see: http://www.maf.govt.nz/forestry

Illegal Logging

In December 2009, the New Zealand Government adopted a policy to address the legality and sustainability of New Zealand's timber trade. The policy specifies international, bilateral and domestic steps to address the issue. For instance, the Government is actively participating in international negotiations advocating for the adoption of a Reducing Emissions from Deforestation and Degradation (REDD) mechanism, which is intended to reduce illegal logging in rain forests. It is also supporting efforts to have Kwila listed in Appendix II of the Convention on International Trade in Endangered Species (CITES). Bilaterally, New Zealand is seeking to develop a joint strategy with Australia to address illegal logging and sustainable forest management, especially in the Asia Pacific region and potentially within the context of free trade agreements. Domestically, the Government has announced that it will support the development of a voluntary code of practice to encourage the verification of the legality of imported timber and timber products as well as the provision of consumer information on legality and sustainability.

National Plantation Forest Estate Statistics		
	04/01/08	**04/01/08**
Forest area		
Net stocked area (ha)	1 761 000	1 751 000
Harvested area awaiting restocking (ha)	47 500	43 700
Total forest area *(note 6)*	1 808 500	1 794 700
Growth characteristics		
Standing volume (000 m^3)	445 933	456 874
Average standing volume (m^3/ha)	253	261
Area-weighted average age (years)	15.2	15.6
Area by species *(note 1)*		
Radiata pine (ha)	1 575 000	1 568 000
Douglas-fir (ha)	111 000	109 000
Cypress species (ha)	9 000	9 000
Other softwoods (ha)	26 000	26 000
Eucalyptus species (ha)	25 000	25 000
Other hardwoods (ha)	15 000	13 000
Radiata pine area by tending regime		
Pruned with production thinning (ha)	213 000	216 000
Pruned without production thinning (ha)	706 000	728 000
Unpruned with production thinning (ha)	34 000	31 000
Unpruned without production thinning (ha)	622 000	593 000
Planting statistics Year Ended	**12/31/07**	**12/31/08**
Total estimated new planting (ha) *(note 2)*	2 400	1 100
Restocking (ha)	34 700	29 500
Harvesting Statistics Year Ended *(note 3)*	**03/31/08**	**03/31/09**
Area clear felled - all species (ha) *(note 4)*	41 400	41 800
Area clear felled - radiata pine (ha) *(note 5)*	38 500	37 700
Volume clear felled - all species (000 m^3) *(note 6)*	18 663	19 192
Volume production thinned - all species (000 m^3)	195	1905
Total volume removed - all species (000 m^3)	18 858	19 382
Average clear fell yield - all species (m^3/ha)	451	459
Volume clear felled - radiata pine (000 m^3)	17 753	18 095
Average clear fell yield - radiata pine (m^3/ha)	461	480
Area-weighted average clear fell age for radiata pine (years)	27.9	28.3
Estimated planted forest roundwood removal (000m^3) *(note 5)*	20 388	18 847

Source: National Exotic Forest Description as of April 1, 2008, Ministry of Agriculture and Forestry, 2009.

Notes

1. Individual entries may not add to totals due to rounding.
2. The method used to estimate new planting is described on page 6 of A National Exotic Forest Description as at 1 April 2008, Ministry of Agriculture and Forestry, 2009.

3. All volumes are reported as recovered volumes inside bark.
4. These figures contain data from 2009 NEFD survey and estimates based on 2008 NEFD survey.
5. Source: Annual log and roundwood removal statistics, Ministry of Agriculture and Forestry, 2009. This is an indirect estimate that uses conversion factors for each forestry product to estimate the total roundwood input that would be required to produce total forest product outputs. It is included here as a comparison with the direct estimate of the total volume removed from the 2009 NEFD Survey.
6. The decrease in total forest area between 1 April 2008 and 1 April 2009 should not be taken as a measure of deforestation. A deforestation estimate will be included in the full NEFD 2009 report.

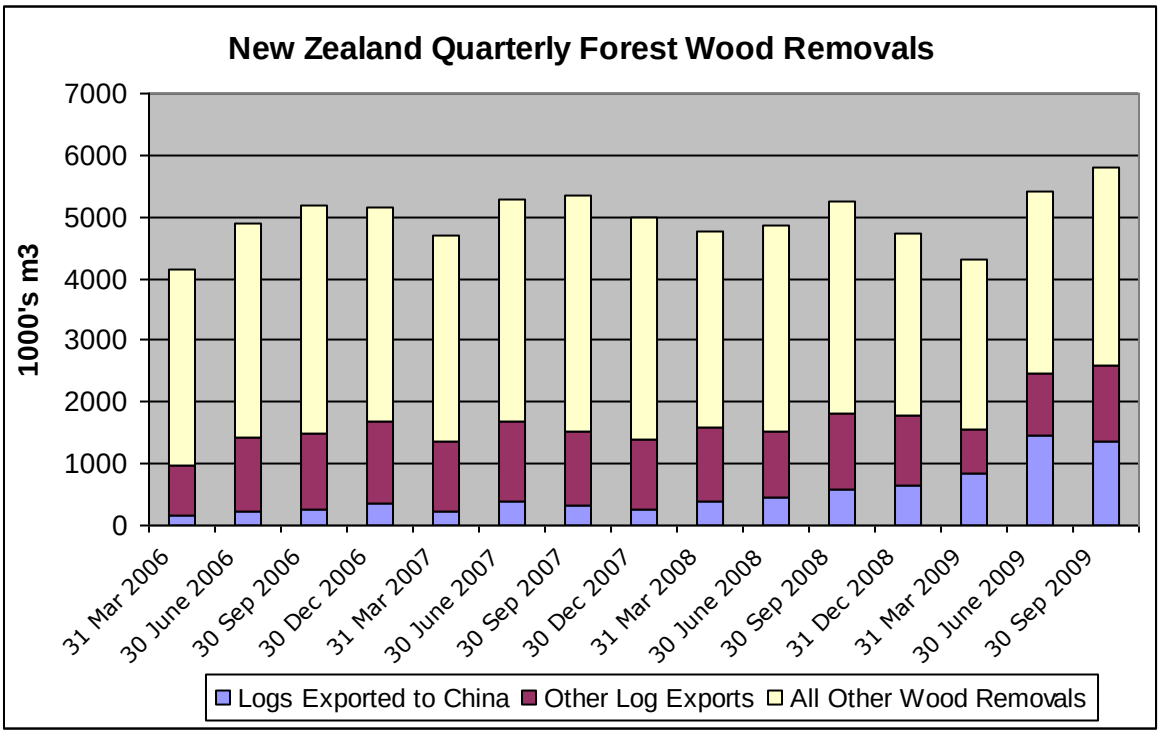
The national exotic forest estate description as at April 1, 2009 published by MAF can be found at: http://www.maf.govt.nz/mafnet/publications/nefd/national-exotic-forest-2009/

Forestry Sector Outlook

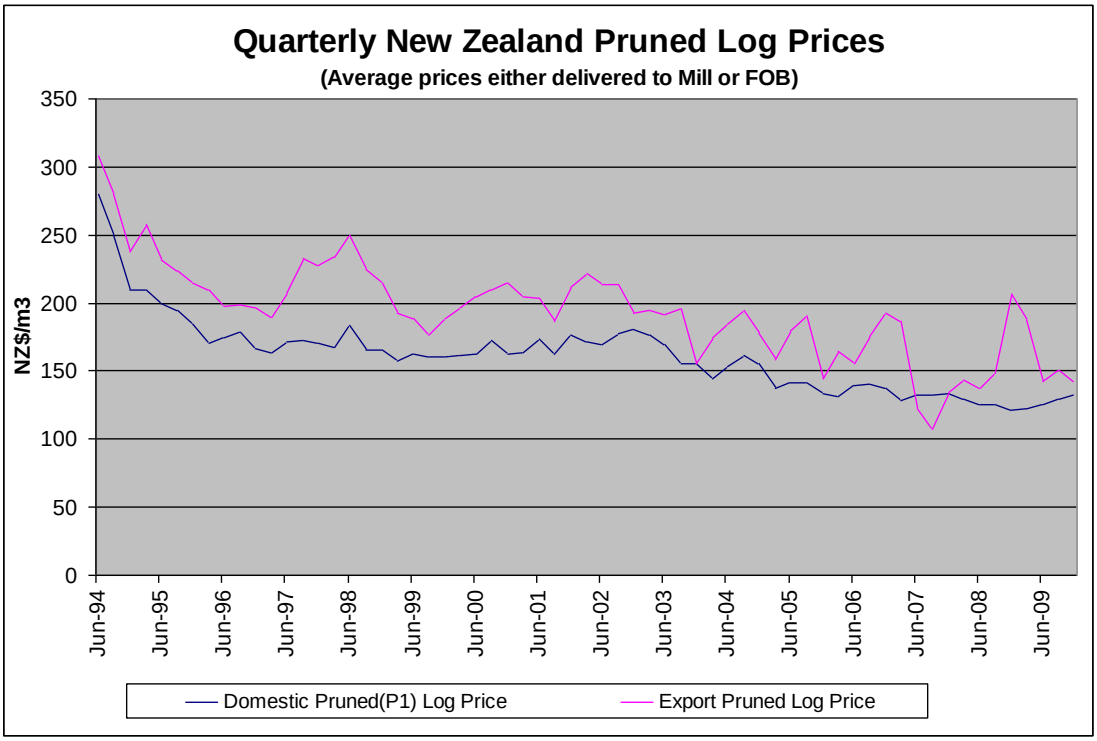
There is considerable potential to expand the area planted to forests in New Zealand, especially as a means of addressing environmental concerns, such as erosion, sequestering carbon, and producing biomass to meet energy needs. According to Landcare Research, a crown research institute, at least one million hectares of the least productive farmland in New Zealand could be planted in trees to slow erosion and increase carbon sequestration. Likewise, research into bioenergy options by SCION, the forestry and biomaterials crown research institute, indicates that there is a significant opportunity for New Zealand to develop a purpose-grown forestry-based biomass resource that could potentially meet national-scale demands for consumer energy. The biomass arising from these forests, which would largely be planted on steep terrain or relatively low producing agricultural grazing land, could be used to provide heat, electricity and transport fuels for New Zealand while mitigating some environmental issues including carbon, water quality and erosion. While further research is necessary, under the afforestation scenarios analyzed by SCION, recoverable forest biomass production of 640 to 900 m3 per ha was estimated to be possible from a 25-year rotation forest management regime that focuses on biomass. A significant percentage of the crop could then also be used to produce sawn logs for traditional export markets. For additional information on SCION's research, please visit: http://www.scionresearch.com/__data/assets/pdf_file/0005/5783/Large-scale-bioenergy-from-forestry.pdf and, http://www.scionresearch.com/__data/assets/pdf_file/0014/6800/Bioenergy-Options-Transition-Report.pdf

Solid Wood Products Situation & Outlook

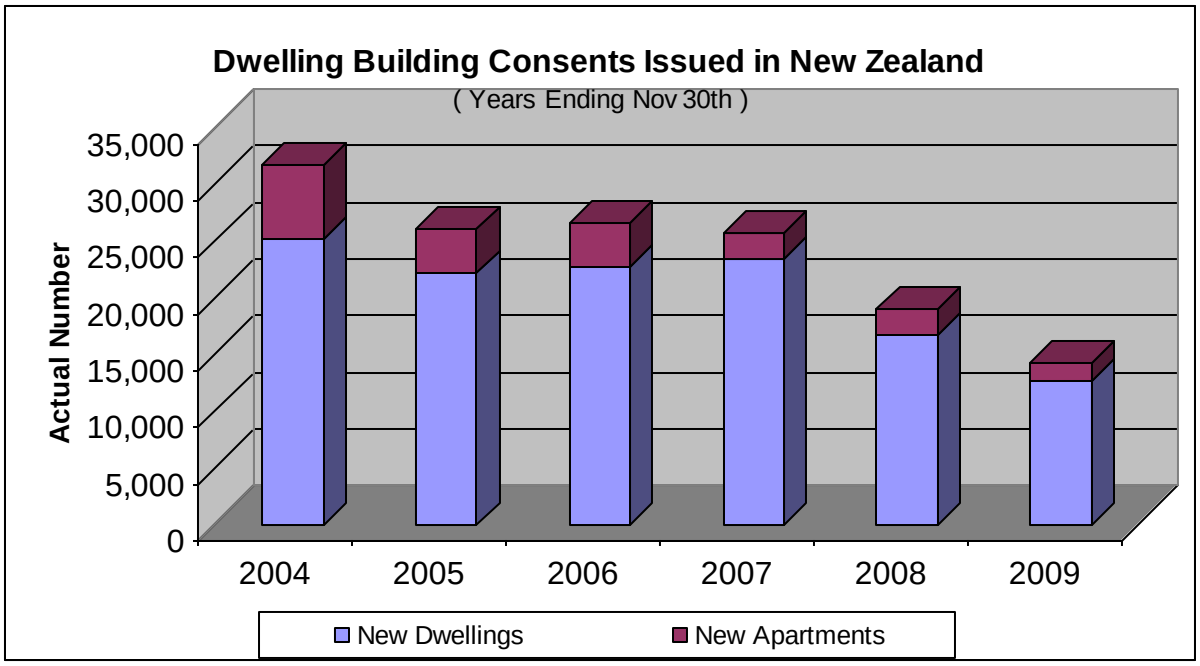
Situation



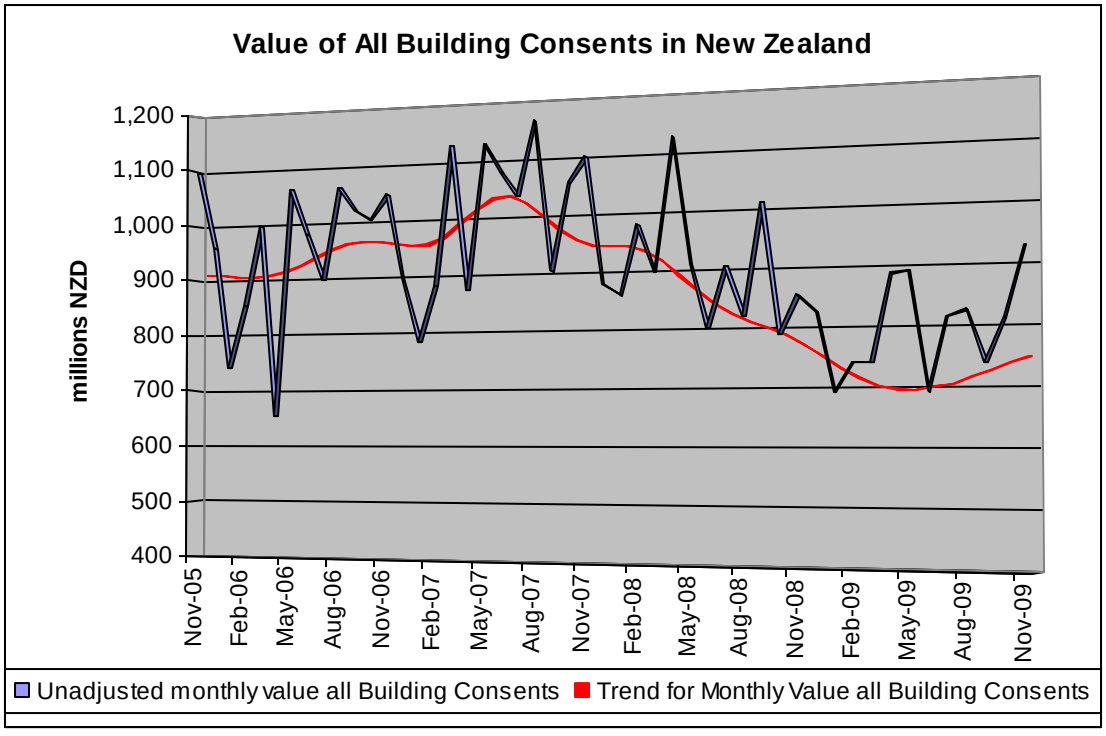
Source: MAF, Global Trade Atlas



Source: MAF



Source: StatisticsNZ



Source: StatisticsNZ

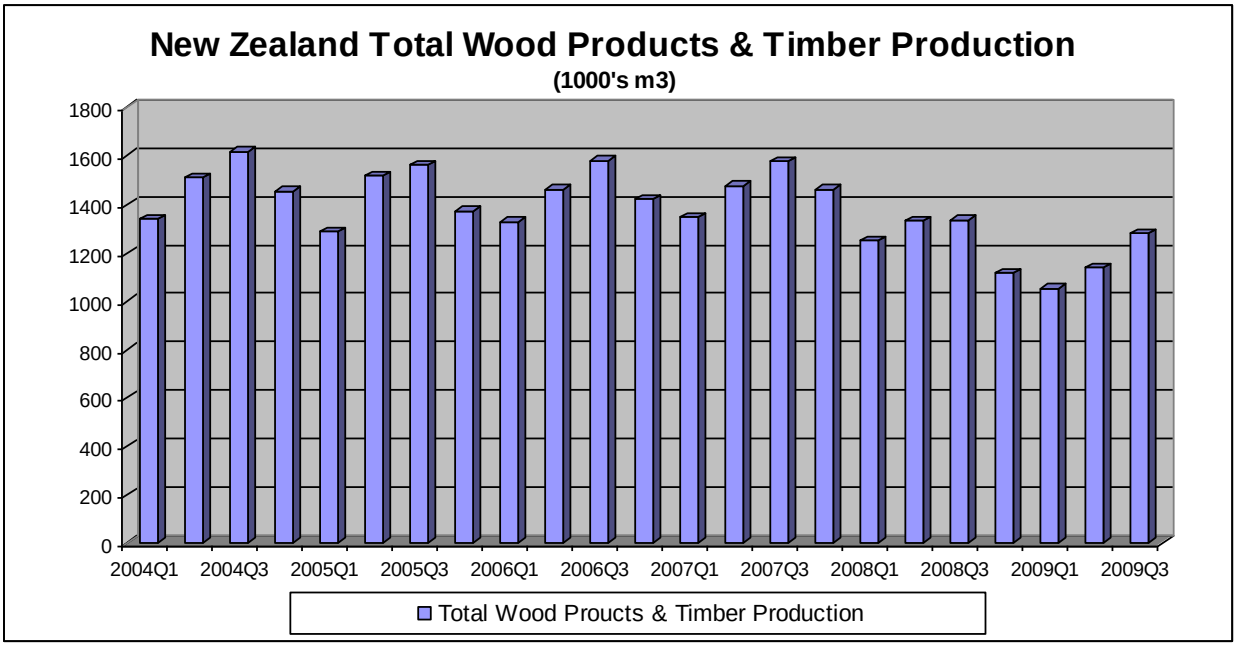
Processing Plants/Mills

The number of processing plants in New Zealand has been steadily declining. In 2001, there were approximately 140 processing plants producing more than 2,500 m3 of product per annum. Since 2003, there have been 32 mill closures taking an estimated 2.4 million m3 of round wood processing capacity (12% - 15% of total round wood removals) out of action. The closures have not been confined to

smaller mills. Rank Group, which owns Carter Holt Harvey - the biggest player in the industry - closed four sawmills out of a total of 15 plants around the country. Since then, sagging demand, due in part to the global credit crisis, has resulted in further closures. Currently, there are approximately 112 processing plants operating in New Zealand producing approximately 4.6 million m3 per annum.

Production Situation

Logging in plantation forests during the second and third quarters of 2009 reached levels not seen since 2002. However, lumber, molding and plywood/fiberboard production was down significantly as a result of the global credit crisis, which has not only impacted the domestic market but export markets as well.



Source: StatisticsNZ

While the domestic and exports processing sectors have experienced challenging times, an increase in the volume of log removals has buoyed the harvesting sector. The increase in harvested logs is primarily the result of one major factor: export log sales to China.
Additional information on log removal and wood production can be found at:
http://www.maf.govt.nz/statistics/forestry/index.htm

Wood Products Outlook

It appears that the processing sector has weathered the worst of the housing/building downturn as domestic and international demand is expected to pick up during the near term. However, the industry is still far from the heady days of 2001-2004 when housing consents peaked and the volume of lumber exported to the US market was on the order of 500,000 - 600,000 m3 p.a. It will likely be several years before building activity gets back to previous levels and, in the short to medium term, wood processing businesses will have to adjust to lower levels of demand unless there is a significant improvement in the economy. On the export side, industry contacts are reasonably confident that the volume of logs being shipped to China will be maintained at the current level for the next 12 months.

Trade and Exports

China is New Zealand's largest export market for logs and wood products followed by Japan, Australia, South Korea and the United States. Together, these five markets account for approximately 80% of New Zealand's forest product exports. With the exception of China, exports to each of these markets fell on a value basis in MY 2009.

New Zealand Wood Exports by Country

All Log & Wood Products except Pulp & Paper

	Millions US Dollars							% change
Partner Country	MY2003	MY2004	MY2005	MY2006	MY2007	MY2008	MY2009	09 over 08
China	119	109	101	135	187	206	400	94.1%
Japan	309	348	350	276	304	289	217	-24.7%
Australia	222	254	260	220	245	289	195	-32.5%
Korea South	180	201	173	197	251	228	191	-16.1%
United States	231	257	273	259	225	195	125	-36.0%
India	14	15	18	31	45	53	53	-1.2%
Vietnam	9	14	20	30	39	41	48	18.9%
Saudi Arabia	2	5	7	10	20	33	24	-26.6%
United Arab Emirates	2	9	10	13	30	38	24	-35.9%
Indonesia	13	12	18	30	33	26	24	-9.1%
Rest of World	111	133	141	134	160	155	121	-21.7%
Total Exports	1212	1358	1370	1334	1539	1553	1423	-8.4%

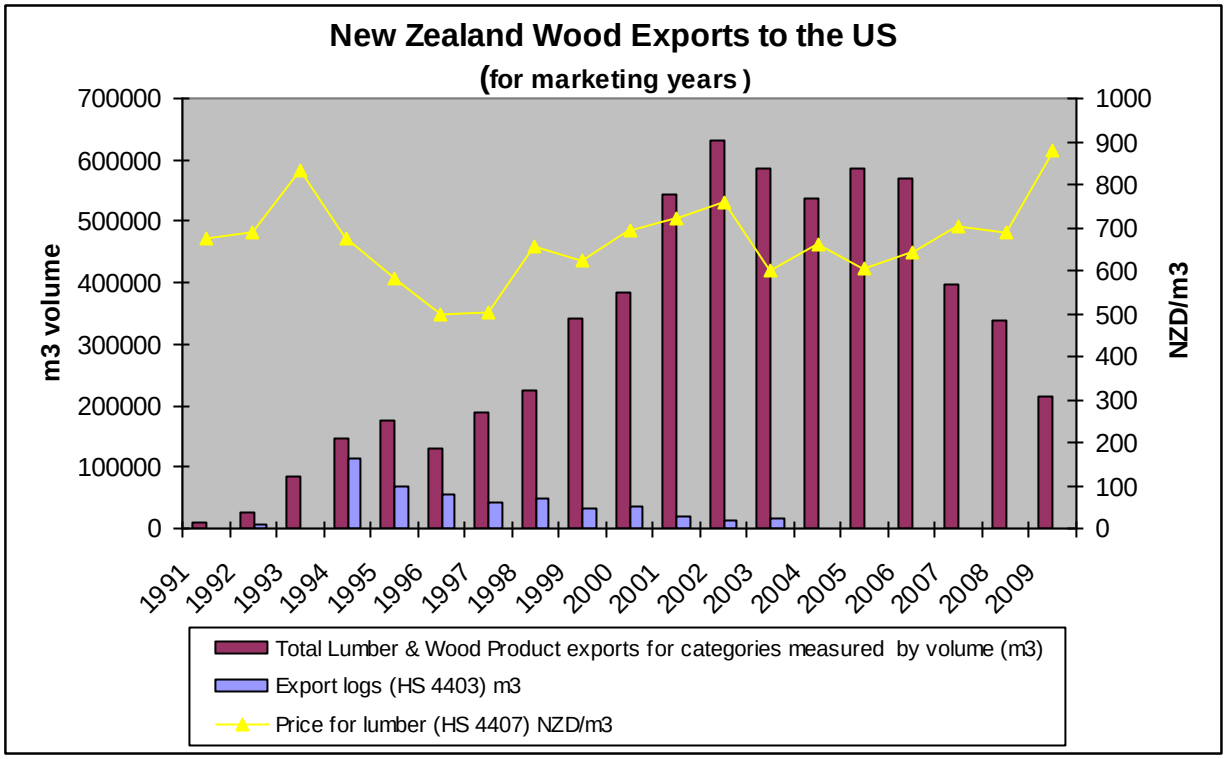
Source: Global Trade Atlas

New Zealand Pulp & Paper Products Exports by Country

	Millions US Dollars							% change
Partner Country	MY2003	MY2004	MY2005	MY2006	MY2007	MY2008	MY2009	09 over 08
Australia	253	306	315	217	282	326	231	-29.0%
China	69	122	126	117	178	147	101	-31.3%
Japan	44	56	73	48	67	69	73	5.3%
Indonesia	26	40	35	51	39	68	63	-7.1%
Korea South	35	48	44	52	64	62	44	-28.7%
Philippines	16	19	33	29	33	36	26	-27.4%
Malaysia	21	23	19	21	24	25	22	-11.6%

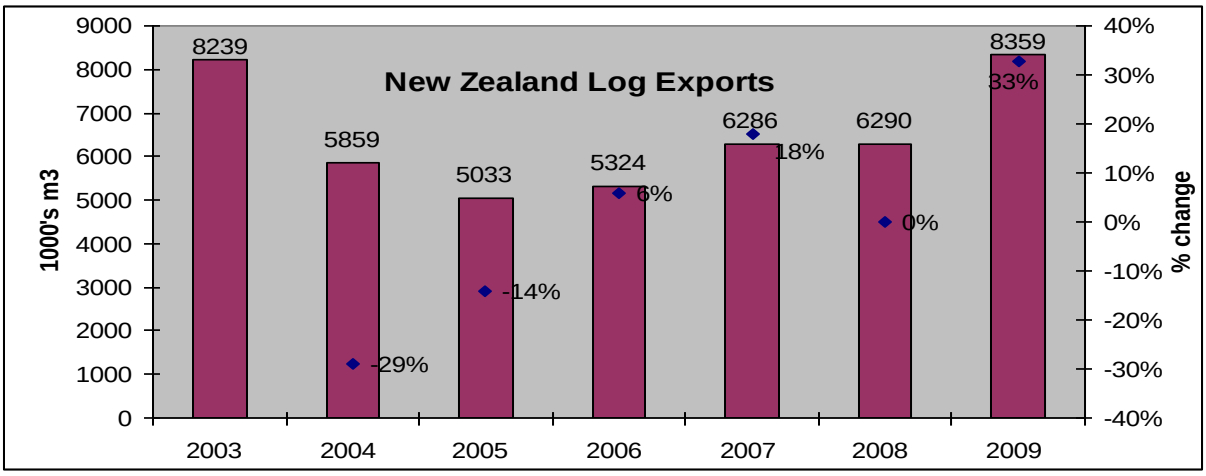
Taiwan	13	18	16	24	31	29	20	-31.8%
Hong Kong	10	24	21	14	11	20	16	-19.8%
Thailand	7	12	14	18	24	26	15	-43.5%
United States	11	13	13	12	11	14	13	-1.7%
Rest of World	49	54	72	69	80	91	73	-19.8%
World Total	554	736	780	672	843	913	698	-23.6%

Source: Global Trade Atlas



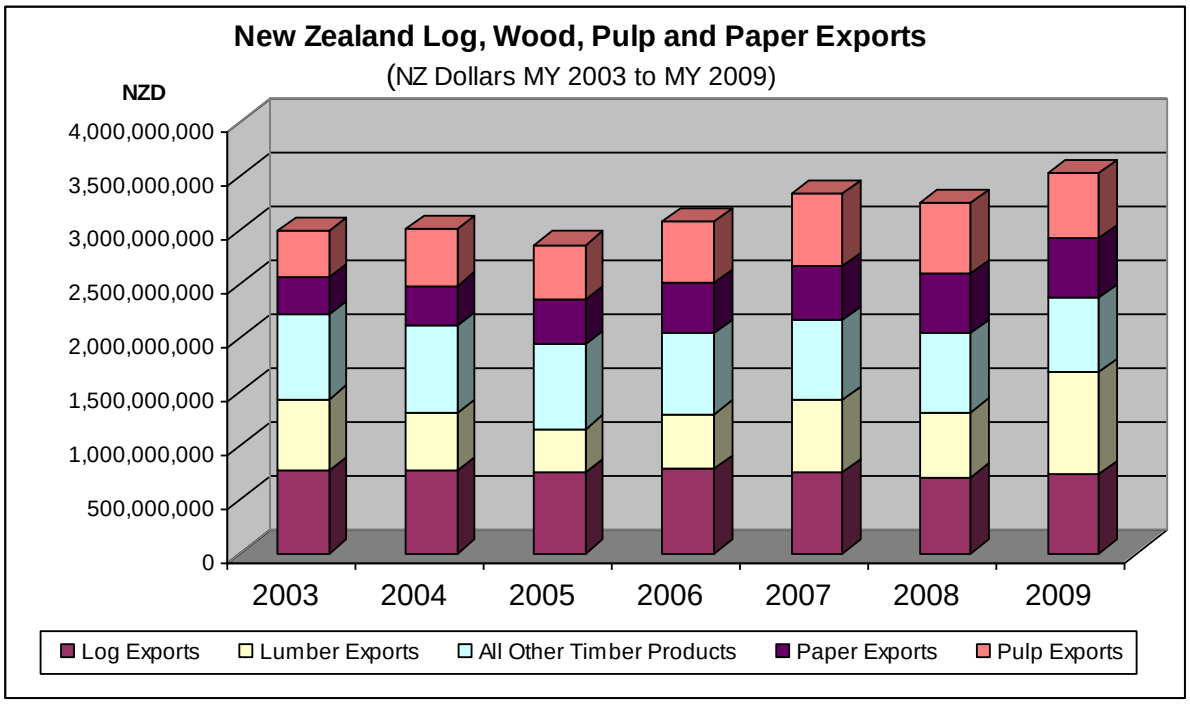
Source: Global Trade Atlas

China, South Korea and India are the top destinations for New Zealand log exports.
New Zealand log exports in MY 2009 were up by nearly 25% in USD terms, or a hearty 57% in New Zealand dollars. The increase was achieved on the back of an increase in log volumes exported to China, up by a massive 154%. According to industry contacts, the increase in exports to China is primarily in response to a drop in logs coming from Russia as a result of the 25% export tax on logs imposed by the Russian Government.

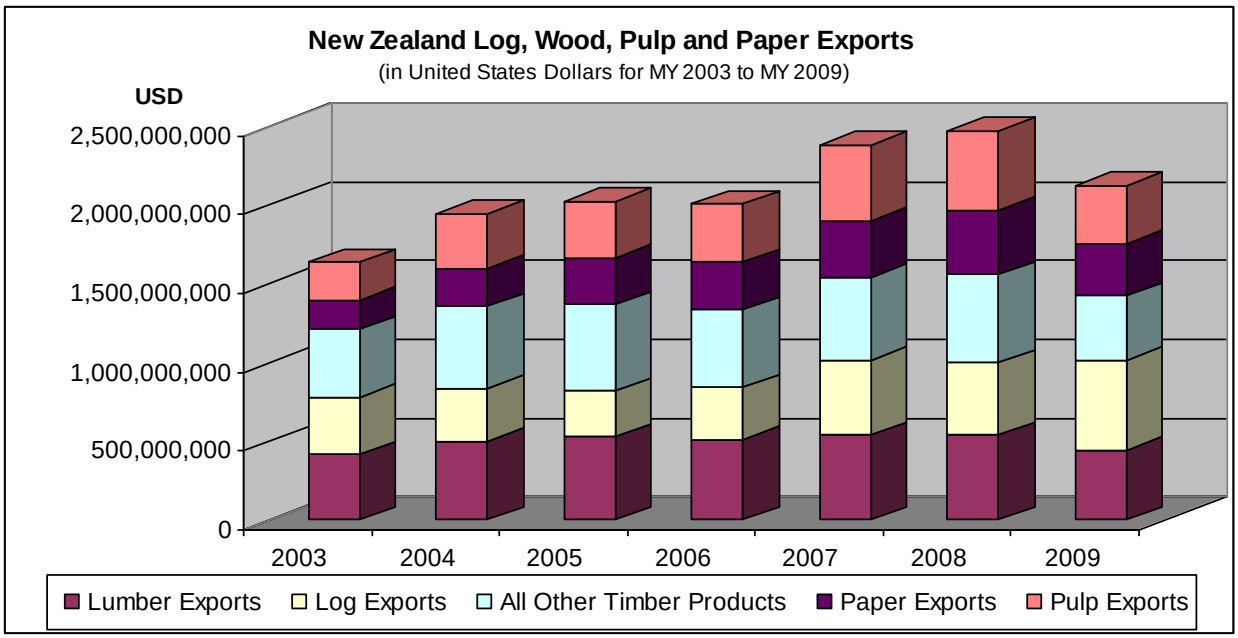


Source: Global Trade Atlas

Factors that are influencing New Zealand's competitiveness in the international market include the exchange rate and shipping costs. In US dollar terms, exports fell by 14% during MY 2009 year compared to the previous year but, in New Zealand dollar terms, total receipts were up 8.6%. With the exchange rate now moving in a much higher band than last year, export receipts are likely to fall in 2010. Shipping costs out of New Zealand have also increased over the last eight to nine months, which will reduce export receipts.



Source: Global Trade Atlas



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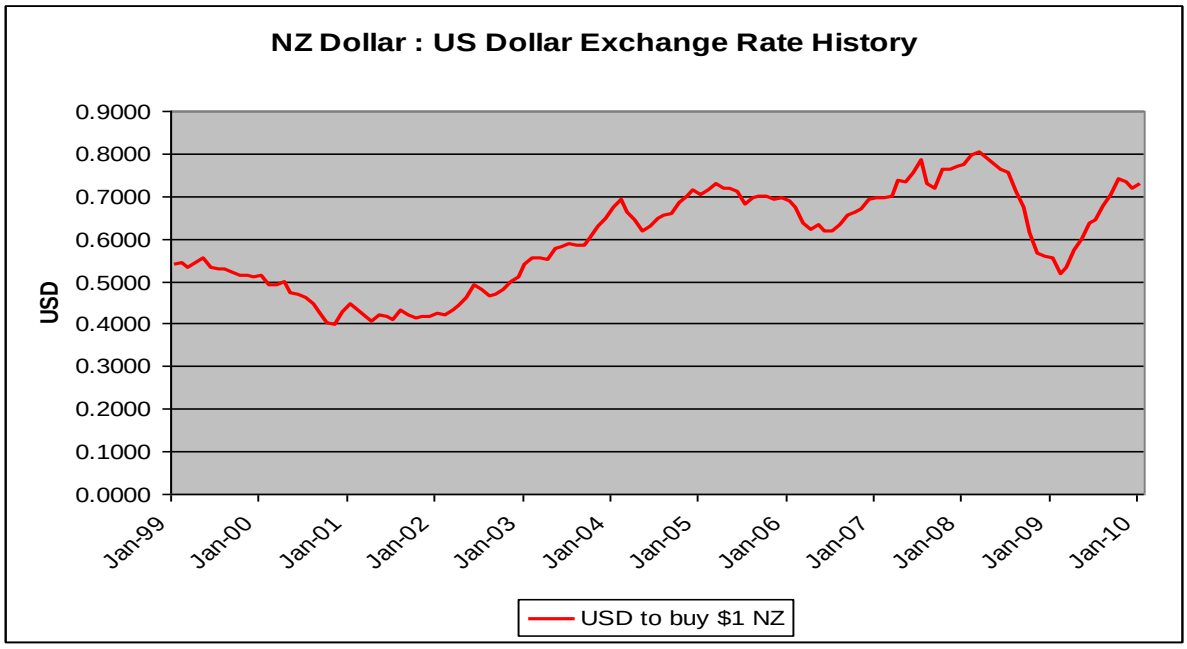

Source: Reserve Bank of New Zealand

Government Policy – Climate Change

Emissions Trading Scheme

In September 2008, the former Labour-led Government implemented the Emissions Trading Scheme (ETS), a major policy initiative designed to address the demands of climate change and fulfill Kyoto Protocol obligations. The National Party-led Government, which was elected in late November 2008, amended the ETS in November 2009.

The New Zealand ETS has no overall cap on emissions as the allocation of free credits to large emitters and agriculture will be on an intensity basis. Free allocation has no firm ending date and may continue indefinitely, subject to growth in production and allocation reviews. The ETS also includes a transitional phase, which lasts until January 1, 2013. During this period, there will be a 50% obligation and a NZ $25 fixed price option for the transport, energy and industrial sectors. This means they will only have to surrender one emission unit for every two tons of CO2 actually emitted. This effectively puts the price of carbon at NZ $12.50 per ton of CO2, which will likely depress the price of forestry credits.

To date, only the forestry sector has entered the ETS, from January 1, 2008, as the entry of other sectors has been postponed. The energy sector, which accounts for approximately 43% of New Zealand's GHG emissions, will enter the scheme on July 1, 2010 and agriculture, which accounts for approximately 48%, is scheduled to enter in 2015. Under the ETS, forests established pre-1990 will incur a penalty if deforested. Forests established post-1989 may elect to join the ETS and can accumulate and trade carbon credits as regulated by the ETS and the Kyoto Protocol rules.

It is unclear at this point what impact the ETS will have on new forestry planting and investment decisions as the regulatory environment is still uncertain.

Carbon Credits

As no other sectors with obligations to buy credits have entered the ETS, the domestic carbon credit market has been slow to develop. However, carbon credits earned by forestry for carbon sequestration have been sold offshore as forestry owners are looking for ways to monetize their Assigned Amount Units (AAUs).

In September 2009, South Island forestry company Ernslaw One Ltd sold about 500,000 AAUs, valued at more than NZ $10 million, to the Norwegian Government. This is believed to be the first international carbon credit sale by a New Zealand company and possibly the world's largest forest-sink sale to date. Industry sources report that the credits were sold for NZ $21 to NZ $22 per ton. Ernslaw One Ltd is one of the largest owners of private Kyoto compliant forest in New Zealand.

There is a limit to the number of New Zealand units (New Zealand Emissions Unit = 1T CO2 in ETS) that can be traded offshore. New Zealand must maintain 90% or more of the Kyoto Units (AAU's) assigned to it under the Kyoto Protocol Commitment Period Reserve (CPR) in the registry. In order to export carbon credits, NZUs must first be converted to AAUs. In total, over commitment period one, New Zealand entities can export a total of 29.3 million AAU's. To date 1.6 million AAU's (0.53%) have been exported.

Under the ETS, forestry entities can register and claim carbon credits (in the form of NZUs) each year from January 1 to March 31. In 2009, 45 entities registered under the ETS and claimed approximately 690,000 NZUs. So far in 2010, an additional 205 entities have registered bringing the total to 250. Information on the number of NZUs claimed is not publically available.

Climate Change Negotiations

The New Zealand Government is lobbying for more flexible rules on forestry in any post-Kyoto agreement.

Government Trade Policy

China FTA

New Zealand and China signed a bilateral free trade agreement (FTA) in Beijing on April 7, 2008. The FTA is comprehensive covering goods, services and investment, and provides for the elimination over time of tariffs on 96% of New Zealand's exports to China. On full implementation, this will equate to an annual duty savings of New Zealand $115.5 million (U.S. $82.4 million). In addition to the FTA, a binding Memorandum of Understanding on Labor was signed with the intention of improving understanding of labor matters, encouraging dialogue, and promoting sound labor policies and practices. A binding agreement on environmental cooperation was also signed with the aim of encouraging sound environmental practices and improving the capacity of each country to address environmental matters through cooperation and dialogue.

The FTA binds China's current applied zero tariff rate on logs and sawn timer, which represent approximately 80% of New Zealand's wood exports to China. It also provides some additional tariff preferences for New Zealand on a limited number of products made from radiata pine. Certain processed wood and paper products, which account for approximately 4% of New Zealand's current exports to China, are exempted from tariff reductions. As part of its accession to the WTO, China agreed that any preferential commitments it makes on wood and paper products in an FTA must then be offered to all WTO members. Additional information is available at: http://chinafta.govt.New Zealand/index.php

ASEAN FTA

After four years of negotiations, New Zealand, Australia and the Association of Southeast Asian Nations (ASEAN) signed an FTA in February 2009. The FTA will eventually eliminate tariffs on 99% of New Zealand's current exports to the four key ASEAN markets of Indonesia, Malaysia, the Philippines and Vietnam. On full implementation, this is estimated to equate to an annual duty savings of approximately New Zealand $50 million based on current trade. The agreement does not contain any specific agricultural safeguards. In the case of Vietnam, wood pulp incurs a 1% tariff, which will be removed by 2016, and paper products, which have a 20% tariff, will be progressively reduced to zero by 2017. Sawn logs and lumber already enter duty free. For more information on the agreement, click on this link: http://www.asean.fta.govt.New Zealand

New Zealand-Gulf Cooperation Council (GCC) Free Trade Agreement

Negotiations on the New Zealand – Gulf Cooperation Council (GCC) Free Trade Agreement (FTA) successfully concluded on October 31, 2009. While details of the agreement are not yet available, it will likely secure improved access to the GCC, which is made up of Bahrain, Oman, Kuwait, Saudi Arabia,

United Arab Emirates, and Qatar. Total exports to GCC totaled New Zealand $1.3 billion in the year to June 2009, an increase of 218% since 2000. The group now ranks as New Zealand's seventh largest trading partner with bilateral trade worth New Zealand $3.85 billion. Navigate to: http://www.mfat.govt.New Zealand/Trade-and-Economic-Relations/Trade-Agreements/Gulf-Cooperation-Council/index.php for more information.

Malaysia – New Zealand Free Trade Agreement

The Malaysia – New Zealand Free Trade Agreement (FTA) was signed in Kuala Lumpur on October 26, 2009. Malaysia is New Zealand's eighth largest export destination, accounting for almost a billion dollars of exports in 2008. Go to http://mfat.govt.New Zealand/Trade-and-Economic-Relations/Trade-Agreements/Malaysia/index.php for more information. This FTA will not have a significant influence on log and wood product exports from New Zealand as nearly all of them are free of tariffs now.

Research

Government Funded Research

Future Forests Research

Future Forests Research (FFR), which was established by the forest industry in 2007 to increase returns to forest owners through partnerships among growers, scientists and government, released its first report in October 2009. FFR works with Scion Crown Research Institute in four main areas:

- Radiata Management
- Diversified Species
- Environment and Social theme
- Harvesting and Logistics

In November 2009, it was announced that FFR's proposal submitted to the new Primary Growth Partnership (PGP) to obtain funds to carry out harvesting research has been accepted by the investment advisory panel. The total project is for New Zealand $6.5m over 6.5 years with PGP providing funding to cover 50% of the total. More information on FFR can be found at: www.ffr.co.New Zealand

Solid Wood Initiative (SWI)

SWI is a joint venture between FoRST, Forest and Wood Products Australia, Weyerhauser Ltd and New Zealand forestry and wood companies to drive research into the development of guaranteed performance softwood products.

Canterbury University

Scientists at Canterbury University are working on advanced building materials using wood, such as laminated beams that use wire ropes in their construction to provide compression tension which confer high flexing properties on to the beam. These specialized beams can be used as the structural components for buildings up to 20 stories high and could be used in earthquake prone areas for important municipal buildings such as hospitals.

Private Research

Using wood residues as the feedstock, Lakeland Steel is now running a continuous process small scale pilot plant, which produces by pyrolysis: bio-oils, water, biochar and syn-gas.

Appendix 1. Useful Links for Further Information

MAF Situation and Outlook for New Zealand Agriculture & Forestry Report:
http://www.maf.govt.nz/mafnet/rural-nz/statistics-and-forecasts/sonzaf/2009/09-forestry.pdf

MAF Forestry Site
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